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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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IN RE APPLICATION OF:

Miroslav CHMELIR et al

:

GROUP ART UNIT: 1713

SERIAL NO.: 09/554,090

:

EXAMINER: Tatyana ZALUKAEVA

FILED: June 14, 2000

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FOR: METHOD FOR PRODUCING WATER-SOLUBLE OR
WATER-SWELLABLE POLYMERIZATES WITH A
VERY LOW RESIDUAL MONOMER CONTENT,
PRODUCTS PRODUCED ACCORDING TO THIS
METHOD AND THE USE THEREOF

SUPPLEMENTAL APPEAL BRIEF

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

Applicants hereby request the reinstatement of the Appeal from the Final Rejection of
Claims 13-16 and 18-31 set forth in the Official Action dated July 31, 2001.

I. REAL PARTY IN INTEREST

Incorporated by reference to the Appeal Brief of December 13, 2001.

II. RELATED APPEALS AND INTERFERENCES

Incorporated by reference to the Appeal Brief filed December 13, 2001.

III. STATUS OF CLAIMS

Incorporated by reference to the Appeal Brief filed December 13, 2001.

IV. STATUS OF AMENDMENTS

Incorporated by reference to the Appeal Brief filed December 13, 2001.

V. SUMMARY OF INVENTION

Incorporated by reference to the Appeal Brief filed December 13, 2001.

VI. ISSUES

Incorporated by reference to the Appeal Brief filed December 13, 2001, now referring to Anderson as opposed to Alexander et al..

VII. GROUPING OF CLAIMS

Incorporated by reference to the Appeal Brief filed December 13, 2001.

VIII. ARGUMENT

(A) 35 U.S.C. §103(a) Rejection of Claim 24.

Applicants are confused by the reopening of prosecution in this case in which Alexander et al was deleted and Anderson was substituted therefor. Both Alexander et al and Anderson have the same Assignee, i.e., American Colloid Company and the disclosure of the Anderson reference is not significantly different from the Alexander et al reference.

In the Official Action of February 25, 2002 Claims 13-31 (sic) are rejected under 35 U.S.C. §103(a) as being unpatentable over Anderson in view of Chmelir.

The Chmelir reference was characterized by the Examiner as set forth on page 3, lines 5-14 of the Appeal Brief of December 13, 2001.

The disclosure of Anderson is characterized by the Examiner as differing from the claims in not disclosing subsequent heating of a polymer at a temperature of 120-240°C. The

Examiner states that Anderson provides the motivation to do so by emphasizing two factors:

a) necessity to obtain polymers with low monomer content, b) citing several specific examples, wherein the temperature of reaction is 130-135°C (Example 19), or 120°C (Example 6).

It is Applicants' position that a *prima facie* case of obviousness has not been established for Claim 24 by the combination of references. Anderson discloses partially or completely neutralizing acrylic acid with various alkali compounds, including an amine, prior to polymerization to form a water-absorbing, crosslinked acrylate polymer or copolymer. Anderson teaches that the heat generated in the polymerization process is used to evaporate water and dry the polymer or copolymer product (column 2, lines 41-46; column 3, lines 55-57; column 4, lines 8-13, lines 22-27 and column 6, lines 42-47 of the specification of Anderson). These numerous disclosures in Anderson clearly teach away from the separate heating step of present Claim 24 "and subsequently heating said water-soluble or water-swallowable polymer or copolymer at a temperature from 120-240°C". The fact that Anderson shows examples of temperature of reaction up to 135°C is not a teaching of a subsequent heating step within a temperature range as in present Claim 24.

The deficiency of Anderson is not cured by Chmelir, because the references are not combinable. In the Chmelir reference, a polymer or copolymer is first formed, followed by treatment of the polymer or copolymer gel or solution with a compound that can react with the double bond of residual unreacted monomer or monomers to convert the monomer or monomers into a saturated compound (see column 2, lines 20-33). The polymer or copolymer gel or solution is dried at a temperature of 50-150°C. In the present invention an acid monomer or monomers alone, or with a comonomer or comonomers, are partially or completely neutralized by a basic nitrogen compound or compounds and do not have the

double bond reacted with to convert the acid monomer or monomers to saturated compounds. If the double bond of the acid monomer or monomers of the present invention were to be converted to a saturated compound, no polymerization or copolymerization could take place in the free radical polymerization step of the present invention, because there would be no double bond polymerization sites.

Because Anderson discloses partially or completely neutralizing acrylic acid with various compounds, among which is an amine, prior to polymerization to form the water-absorbing resin, the worker of ordinary skill in the art would not be directed to apply the drying step of Chmelir in place of the use in Anderson of the heat generated in the polymerization process to evaporate water and dry the polymer. Because the processes of Chmelir and Anderson are completely different, the worker of ordinary skill in the art would not be directed, therefore, to incorporating any of the steps of Chmelir, including drying, in the process of Anderson, since Anderson does not demonstrate a need to do so and, in fact, teaches away from a subsequent heating step by the recitation in numerous places in Anderson that only the heat generated in the polymerization process is necessary to evaporate water and dry the polymer or copolymer product. Therefore, Claim 24 distinguishes over the combination of references.

(B) Argument Against the Rejection of Claim 13 Under 35 U.S.C. §103.

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

(C) Argument Against the Rejection of Claim 14 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to

Anderson as opposed to Alexander et al.

(D) Argument Against the Rejection of Claim 15 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

(E) Argument Against the Rejection of Claim 16 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

(F) Argument Against the Rejection of Claim 18 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

(G) Argument Against the Rejection of Claim 19 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

(H) Argument Against the Rejection of Claim 20 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

(I) Argument Against the Rejection of Claim 21 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to

Anderson as opposed to Alexander et al.

(J) Argument Against the Rejection of Claim 22 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

(K) Argument Against the Rejection of Claim 23 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

(L) Argument Against the Rejection of Claim 25 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

(M) Argument Against the Rejection of Claim 26 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

(N) Argument Against the Rejection of Claim 27 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

(O) Argument Against the Rejection of Claim 28 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to

Anderson as opposed to Alexander et al.

(P) Argument Against the Rejection of Claim 29 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

(Q) Argument Against the Rejection of Claim 30 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

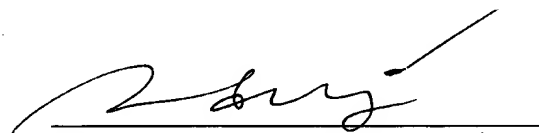
(R) Argument Against the Rejection of Claim 31 Under 35 U.S.C. §103

Incorporated by reference to the Appeal Brief of December 13, 2001, now referring to Anderson as opposed to Alexander et al.

In view of the preceding arguments Appellants respectfully request that the Examiner's rejection of Claims 13-16 and 18-31 be REVERSED.

Respectfully submitted,

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APPENDIX I

Pending Claims in U.S. Application Serial No. 09/554,090.

Incorporated by reference to the Appeal Brief of December 13, 2001.